Approved For Release 2002/08/16: CIA-RDP66B00728R000300050020-0 ENGINEERING STUDY 1. A. C - 114 LOCKHEED AIRCRAFT CORP. CHANGE PROPOSAL X DATE AFFECTS: **WSPO** X 10-11-61 **PROJECT** NAME OF MAJOR COMPONENT PART OR LOWEST SUBASSEMBLY PART NO. & MODEL OR TYPE AIRPLANE TITLE OF PROPOSAL: ADDITION OF VOR CAPABILITY NATURE OF PROPOSAL: 25X1A SEE SHEET 2 REASON FOR PROPOSAL: To provide in 7 aircraft additional navigational capability, per Customer request, by installation of ARC-15F (Crystal Controlled) VOR, and accomplish a weight saving and provide space by replacing existing AN/ARN-6 ADF with AN/ARN-59 ADF in 4 aircraft. (Note: Installation of AN/ARN-59 has been authorized on A/C Serial 342, 343, and 344; reference LAC ECP-99. 25X1A DOCUMENT NO. NO CHANGE IN CLASS. [] DECLASSIFIED CLASS. CHANGEL TO: TS (\$ NEXT REVIEW DATE AUTH: MR 73-2 ESTIMATED COST AND TIME INVOLVED : ES ADDITIONAL FUNDING REQUIRED: ESTIMATED COST FOR KITS OR PARTS: CP SEE PAGE 4 ADDITIONAL FUNDING REQUIRED: ITEMS AFFECTED BY PROPOSAL: SAFFTY MISSION EFFEC-TIVENESS OPERATING PROCEDURE INTER-CHANGE-ABILITY WEIGHT OR WEIGHT & BALANCE TOOLS & SUPPORT EQUIPMENT MAINTE-NANCE MANUAL MAINTE-FLIGHT NANCE PROCEDURE X X \mathbf{x} LX X X X EST. MAN/HRS. REQ'D. TO ACCOMPLISH CHANGE IN FIELD. SOURCE OF PARTS FOR KIT AVAILABILITY WEEKS AFTER APPROVAL LAC SEE PAGE 4 DISPOSITION OF SPARES AFFECTED 25X1A TO BE DETERMINED BY WRAMA INITIATED BY : APPROVED: McDO-PROJECT Approved For Release 2002/08/16 : CIA-RDP66B00728R000300050020=

NATURE OF PROPOSAL

Note: Four aircraft (352, 355, 358 and 378) will be modified by addition of VOR and by replacement of the ARN-6 with the ARN-59 ADF system. This configuration allows a weight savings of 6 pounds.

Three aircraft (342, 343, 344) will be modified by the addition of VOR. Installation of the ARN-59 ADF system has been previously approved. (Ref. ECP LAC-99). This configuration adds 28 lbs. weight.

After all modifications are complete, the seven aircraft will have identical ADF and VOR systems, except for slight differences in equipment location.

1. The ADF Loop and VOR Antenna will be housed in an all plastic nose, eliminating the need for an external VHF antenna.

On four aircraft not equipped with the 618T-3 HF system in the nose, the AN/ARN-30 VOR Receiver and ARC type B-18A RMI Converter will be installed in the nose area presently occupied by the ARN-6 ADF Receiver. On the three aircraft equipped with the 618T-3 equipment, the VOR receiver and the RMI Converter will occupy the area forward of the 618T-3 transceiver pressure box. This area is presently designated as "alternate" provisions for system VI Power Supply". The bracketry will be such to allow convenient installation of either the VOR units or the System VI units, but not simultaneously.

- 2. The ADF and VOR controls will be located on the R.H. side console. Mark III hand controls will be required. The contractor understands that the subject aircraft are equipped with these controls. If not, aircraft with other than Mark III controls must be modified by installation of Mark III controls.
- 3. On the four aircraft not equipped with 618T-3 and air refueling system, the stand-by compass will be relocated to the right hand upper area of the center instrument panel. The VOR indicator will be installed in the area presently occupied by the stand-by compass. On the three aircraft with the 618T-3 and air refueling system, the location of the VOR indicator will be necessarily different due to the presence of the ARS indicator panel. A suitable location will be selected for this VOR indicator during first mock-up.
- 4. The sense antenna will be reworked to provide improved operation, as determined by previous flights on FOG aircraft.
- 5. Prepare and issue a Service Bulletin and manufacture the necessary kits.
- Note: 1. Due to "tight" scheduling, the installation of the VOR system cannot be done at the factory during time of conversion.
 - 2. Due to complexity of this change, it is recommended that this modification be accomplished at the factory at a later date.

25X1A

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